a1

1. **(Amended)** A method of determining a soft material structure, comprising:

taking transmission electron microscopy images of a soft material under conditions that a plurality of crystallographically significant directions are selected in succession as incident axes of electrons,

converting the images to data in electronic form,

Fourier transforming the data generated from each of the images,

determining directly from the Fourier-transformed data the amplitudes and phases of three-dimensional crystal structure factors, the phases being directly determined assuming weak topological object approximation,

performing inverse Fourier transforms using the determined amplitudes and phases, and

determining the structure of the soft material therefrom.

a2

6. **(Amended)** A method of determining a soft material structure as described in claim 1, wherein the images used to provide the data for Fourier transform are partial areas of images corresponding to no greater than 50 nm-thick parts of a sample of the soft material.

Add the following new claims:

a3

--7. The method of claim 1, wherein the electron microscopy images are obtained with a high-resolution transmission electron microscope.

8. The method of claim 1, wherein, for diffracted waves in a region of high spatial frequency, the influence of aberration in an objective lens is reduced through estimation of the amount of defocus using a Weiner filter.--